Claims

<u>What is claimed</u>:

1.   A method for processing data, comprising:

defining a number of color channels, each channel to transfer a particular color element of a stream of color type pixel data;

identifying monochrome type pixel data within a data stream; and

allocating a color channel to transfer the identified monochrome type pixel data.

2.   The method of claim 1, wherein the number of color channels equals a number of colors available on a device.

3.   The method of claim 1, wherein more than one color channel is allocated to transfer the identified monochrome type pixel data.

4.   The method of claim 1, wherein defining a number of color channels includes defining a red data channel, a green data channel, and a blue data channel.

5.   The method of claim 4, further comprising allocating the identified monochrome type pixel data to the red data channel.

6.   A method for processing pixel data, comprising:

sharing a color channel to transfer monochrome type pixel data and color type pixel data;

identifying monochrome type pixel data within a data stream; and

transferring the identified monochrome type pixel data through the shared channel.

7.   The method of claim 6, further including sharing a channel selected from a red channel, a green channel, and a blue channel.

8.   The method of claim 7, further including transferring monochrome and color type pixel data in the red channel and the blue channel.

9.   The method of claim 6, further including sharing a channel selected from a Luminosity channel, an A-layer channel, and a B-layer channel.

10.   The method of claim 6, further including sharing a channel selected from a Luminosity channel, a Chroma channel, and a Hue channel.

11.   A computer readable medium having a set of executable instructions for causing a device to perform a method, comprising:

    defining a number of color channels, each channel to transfer a particular color element of a stream of color type pixel data;

    identifying monochrome type pixel data within a data stream; and

    allocating a the color channel to transfer the identified monochrome type pixel data.

12.   The medium of claim 11, wherein the method further comprises bypassing processing of identified monochrome type pixel data in a processing module along a color channel allocated to transfer the identified monochrome type pixel data.

13.   The medium of claim 12, wherein bypassing includes processing monochrome type pixel data with the processing module.

14.   The medium of claim 11, wherein the method further comprises processing color type pixel data, transferred through the number of color channels, with a processing module along a color channel.

15.   The medium of claim 11, wherein the method further comprises defining a Luminosity channel, an A-layer channel, and a B-layer channel.

16.   The medium of claim 11, wherein the method further comprises defining a Luminosity channel, a Chroma channel, and a Hue channel.

17.   The medium of claim 16, wherein the method further comprises allocating the Luminosity channel to transfer monochrome type pixel data.

18.   An image processing unit, comprising:

an application specific integrated circuit having a color pipeline to transfer monochrome and color type pixel data;

a channel in the color pipeline to transfer both monochrome type pixel data and color type pixel data; and

a number of processing modules connected to the color pipeline, wherein at least one of the processing modules processes the monochrome type pixel data and wherein at least one of the processing modules processes color type pixel data.

19.   The image processing unit of claim 18, further including a processing module to process both monochrome type and the color type pixel data.

20.   The image processing unit of claim 19, wherein one or more processing modules can be bypassed based upon a type of pixel data to be processed.

21.   A data processing system, comprising:

a processing unit having a number of color type pixel processing channels; and

means for identifying monochrome type pixel data;

means for allocating a color type pixel processing channel to transfer the identified monochrome type pixel data.

22.   The data processing system of claim 21, wherein the means for identifying includes computer executable instructions to identify monochrome type pixel data in a data stream.

23.   The data processing system of claim 21, wherein the means for allocating includes computer executable instructions to allocate at least one of the color type pixel processing channels to transfer the identified monochrome type pixel data.

24.   The data processing system of claim 23, further including a set of instructions to preset a number of processing modules to process monochrome type pixel data and bypass color type pixel data through the processing unit unprocessed.

25.   A data processing system, comprising:
a data source to provide a number of types of pixel data;
a processing unit coupled to the data source, the processing unit having a pipeline to perform pixel processing operations on monochrome type and color type pixel data, wherein the processing unit transfers the color type pixel data in a number of channels defined within the pipeline and processes the monochrome type pixel data with a number of processing modules connected to a defined channel; and
a destination device for receiving processed data from the processing unit.

26.   The data processing system of claim 25, wherein the processing unit can receive at least one of the number of types of pixel data and wherein the processing unit can be set to process the number of types of pixel data based upon identification of the type of pixel data to be received by the processing unit.

27.   The data processing system of claim 25, the system further includes a memory for storing processed data received from the pipeline.

28.   The data processing system of claim 27, wherein the destination device includes a display to receive and display processed pixel data.

29.   The data processing system of claim 25, wherein the destination device includes a printer to receive and print processed pixel data.